Latihan

1. Jadual menunjukkan bilangan pingat yang dimenangi oleh Pasukan P dan Pasukan Q.
The table shows the number of medals won by team P and team Q.

	Emas *Gold*	Perak *Silver*	Gangsa *Bronze*
Pasukan P *Team P*	5	8	17
Pasukan Q *Team Q*	6	4	19

Bina satu / *Construct a*

(a) matriks 2×3.
2×3 *matrix.*

(b) matriks 3×2.
3×2 *matrix.*

BAB 4

2. Lengkapkan jadual yang berikut.
Complete the following table.

	Matriks *Matrix*	Bilangan baris *Number of row*	Bilangan lajur *Number of columns*	Peringkat *Order*
(a)	$\begin{pmatrix} 2 & 9 \end{pmatrix}$			
(b)	$\begin{pmatrix} 1 & 5 \\ 0 & 3 \end{pmatrix}$			
(c)	$\begin{pmatrix} 4 & 0 & 3 \\ -5 & 6 & 9 \end{pmatrix}$			
(d)	$\begin{pmatrix} 10 \\ -4 \\ 7 \end{pmatrix}$			

3. Diberi matriks $D = \begin{pmatrix} 8 & 0 & -9 \\ -3 & 5 & 2 \end{pmatrix}$, nyatakan nilai bagi

Given matrix $D = \begin{pmatrix} 8 & 0 & -9 \\ -3 & 5 & 2 \end{pmatrix}$, *state the value of*

(a) d_{12}	(b) d_{21}	(c) d_{23}
(d) d_{11}	(e) d_{22}	(f) d_{13}

Scanned with CamScanner

4.2 Matriks sama
Equal matrix

2. Jika / *If* $\begin{pmatrix} a & b \\ c & d \end{pmatrix} = \begin{pmatrix} m & n \\ p & q \end{pmatrix}$ maka / *then* $a = m, b = n, c = p$ dan / *and* $d = q$.

Contoh / Example

Diberi matriks $A = \begin{pmatrix} 4 & x+1 \\ y-2 & 1 \end{pmatrix}$ dan matriks $B = \begin{pmatrix} 4 & 6 \\ 8 & 1 \end{pmatrix}$, cari nilai x dan nilai y jika $A = B$.

Given matrix $A = \begin{pmatrix} 4 & x+1 \\ y-2 & 1 \end{pmatrix}$ *and matrix* $B = \begin{pmatrix} 4 & 6 \\ 8 & 1 \end{pmatrix}$, *find the value of x and of y if* $A = B$.

Penyelesaian / *Solution:*
Bandingkan unsur – unsur yang sepadan.
Compare the corresponding elements.

$x + 1 = 6$ $\qquad$ $y - 2 = 8$
$x = 5$ $\qquad$ $y = 10$

Latihan

1. Isi tempat kosong dengan " = " atau " ≠ ".
Fill in the blanks with " = " or " ≠ ".

(a) $\begin{pmatrix} 1.5 \\ 4 \end{pmatrix} \square \begin{pmatrix} \frac{3}{2} \\ 4 \end{pmatrix}$	(b) $\begin{pmatrix} 5 & \frac{3}{4} \end{pmatrix} \square \begin{pmatrix} 5 & 0.75 \end{pmatrix}$
(c) $\begin{pmatrix} 2 & 1 \\ 3 & 0 \end{pmatrix} \square \begin{pmatrix} 1 & 2 \\ 0 & 3 \end{pmatrix}$	(c) $\begin{pmatrix} 1 & \frac{1}{2} \\ 5 & -3 \\ 8 & 0.25 \end{pmatrix} \square \begin{pmatrix} 1 & 0.5 \\ 5 & -3 \\ 8 & \frac{1}{4} \end{pmatrix}$

2. Cari nilai x dan nilai y yang memuaskan persamaan matriks yang berikut.
Find the value of x and of y which satisfy the following matrix equations.

(a) $\begin{pmatrix} x-3 \\ 5 \end{pmatrix} = \begin{pmatrix} -1 \\ y+1 \end{pmatrix}$	(b) $\begin{pmatrix} 4-x & 9 \end{pmatrix} = \begin{pmatrix} -6 & 2y-1 \end{pmatrix}$

Scanned with CamScanner

(c) $\begin{pmatrix} 4 & 2-y \\ 7 & x+5 \end{pmatrix} = \begin{pmatrix} 4 & 6 \\ 7 & 2 \end{pmatrix}$

(d) $\begin{pmatrix} 3 & 2x-5 \\ 1 & 3-y \end{pmatrix} = \begin{pmatrix} 3 & 0 \\ 3 & 8 \end{pmatrix}$

(e) $\begin{pmatrix} 6 & 9 & 0 \\ 2x-3 & 1 & -5 \end{pmatrix} = \begin{pmatrix} 6 & y+3 & 0 \\ 5 & 1 & -5 \end{pmatrix}$

(f) $\begin{pmatrix} 2 & 1+3x \\ 3-2y & 4 \\ 8 & -3 \end{pmatrix} = \begin{pmatrix} 2 & 10 \\ 7 & 4 \\ 8 & -3 \end{pmatrix}$

Scanned with CamScanner